WHAT IS CLAIMED IS:

1. A admission control method used in cluster-based micro/picocellular wireless networks for determining whether a new mobile user is admitted to enter a cell upon arriving the cell, wherein a

5   cluster has a plurality of cells and a cell has a plurality of channels, the method comprising the steps of:

(A) providing a cluster level threshold and cell level threshold; and

(B) admitting the mobile user to enter the cell if the number of

10   occupied channels in the cluster is less than the cluster level threshold and the number of occupied channels in the cell is less than the cell level threshold; otherwise, refusing the mobile user to enter the cell.

2. The method as claimed in claim 1, wherein the cluster level threshold is equal to or less than the total number of channels in a cluster,

15   and the cell level threshold is equal to or less than the number of channels in a cell.

3. The method as claimed in claim 2, wherein the cell level threshold is at least one and the cluster level threshold is at least the number of cells in the cluster.

20   4. The method as claimed in claim 3, wherein the cluster level threshold and the cell level threshold are selected in such a manner that combinations of the cluster and cell level thresholds that can guarantee a predetermined call hand-off dropping probability under any load condition are first found, and then, a particular combination of cluster

25   and cell level thresholds that results in a maximum throughput of the

network among the combinations which satisfy a bound on call hand-off dropping probability is found.

5. The method as claimed in claim 4, wherein the cluster level threshold is used to reduce the probability that a cluster becomes congested under heavy load.

6. The method as claimed in claim 4, wherein the cell level threshold is used to reduce the probability of localized congestion in a cell.